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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,961	03/22/2004	Jong-Whan Cho	21C-0119	2751
23413 7590 04/01/2009 CANTOR COLBURN, LLP 20 Church Street 22nd Floor Hartford, CT 06103				
EXAMINER CHOWDHURY, AFROZA Y				
ART UNIT 2629		PAPER NUMBER		
NOTIFICATION DATE 04/01/2009		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usptopatentmail@cantorcolburn.com

### Office Action Summary

**Application No.**

10/805,961

**Applicant(s)**

CHO ET AL.

**Examiner**

AFROZA Y. CHOWDHURY

**Art Unit**

2629

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 5-9, 11, 12 and 17-30 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-16 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's amendment received on **January 15, 2009** has been entered. Claims 1-30 are currently pending. Claims 5-9, 11, 12, and 17-30 are withdrawn from further consideration since these are drawn to nonelected species. Applicant's argument is addressed herein below.
2. This application contains claims 5-9, 11, 12, and 17-30 are drawn to an invention nonelected without traverse in the reply filed on **May 23<sup>rd</sup>, 2007**. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over **May** (US Patent 4,454,417) in view of **Colgan et al.** (US Patent 6,529,189).

As to claim 1, May discloses a light pen comprising: a body (fig. 2);

a photo detective module (figs. 1, 5(30)) that is configured to detect a light (first light) inputted from an external source to output a sensing signal of which level is changed in accordance with an intensity of the light (col. 2, lines 45-56, col. 3, lines 5-16, col. 4, lines 25-28, 48-52), the photo detective module being disposed in the body (fig. 1), and the photo detective module is exposed to an exterior to the body (figs. 1, 2, 5, col. 8, lines 11-21); and

a control module that is configured to output a control signal in response to the sensing signal when the level of the sensing is higher than a level of a reference signal (fig. 5, col. 5, lines 3-7).

May does not teach a light generating module that is configured to receive a driving power signal in response to the control signal to generate a light.

Colgan et al. teaches a stylus that has a light generating module (fig. 2(18), LED) that is configured to receive a driving power signal (fig. 3, col. 3, lines 40-45) in response to a control signal to generate a light (second light) (fig. 3, col. 3, lines 35-40).

Therefore, it would have been obvious to one skill in the art at the time of the invention was made to modify May's light pen using the idea of Colgan et al. of including light generating module to make a light pen with improved operation where a detector detects a first light to output a sensing signal and a control module outputs a driving signal in response to the sensing signal to generate a second light.

As to claim 2, it is an obvious choice of design to make a light pen with a light generating module that includes a light emitting diode for generating a white light.

5. Claims 3, 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over **May** (US Patent 4,454,417) in view of **Colgan et al.** (US Patent 6529189) and in further view of **Traub** (US Patent 3911270).

As to claim 3, May (as modified by Colgan et al.) discloses a light pen including a photo detective module (figs. 1, 5(30)).

May (as modified by Colgan et al.) does not explicitly teach a light pen wherein the photo detective module includes a photo transistor or a photo diode.

Traub teaches a light pen wherein the photo detective module includes a photo transistor or a photo diode (col. 2, lines 38-42).

Therefore, it would have been obvious to one skill in the art at the time of invention was made to modify the light pen of May (as modified by Colgan et al. using Traub's idea of using diode in order to make a light pen with reduced cost and weight.

As to claims 4 and 10, May (as modified by Colgan et al.) discloses a stylus that includes a tip (fig. 2, col. 3, lines 10-11, in Colgan et al.) and a switch (fig. 1 and 2 (12,14), col. 3, lines 25-34, buttons in Colgan et al.) applies an operation signal to the

control module in response to the movement of the tip (fig. 2(16), col. 3, lines 10-11, in Colgan et al.).

May (as modified by Colgan et al.) does not teach any opening at the end of the body and a tip having a cylinder flange shape. Making a cylinder flange shape tip is a design choice.

Traub teaches a light pen wherein an end of the body includes an opening (fig. 1(16)) through which the light exits and the tip (fig. 1(14), col. 2, lines 25-31) comprises an elastic member (fig. 1(36), col. 2, lines 54-58).

Therefore, it would have been obvious to one skill in the art at the time of invention was made to combine Traub's light pen with the light pen of stylus of May (as modified by Colgan et al.) in order to make a light pen that would operate with a liquid crystal display device.

#### ***Allowable Subject Matter***

6. Claims 13 –16 are allowable.
7. The following is a statement of reasons for the indication of allowable subject matter:

None of the prior art references, alone or in combination, does not show “a **driving pulse generating module that is configured to generate a first driving power pulse having a first frequency during a first time period and a second driving power pulse having a second frequency during a second time period, the driving pulse generating module being disposed in the body; and a light**

**generating module that is configured to generate a first light in response to the first driving power pulse and a second light in response to the second driving power pulse, the first light flickering at a third frequency, and the second light flickering at a fourth frequency"** in combination with other limitations of claim 13.

Claims 14-16 are allowable since those are dependent on independent claim 13.

### ***Response to Arguments***

8. Applicant's arguments filed **January 15, 2009** have been fully considered but they are not persuasive.

On the 4<sup>th</sup> page of Remarks, last paragraph, Applicants asserts **that May and Colgan cannot teach or suggest the organic combination or the photodetective module and the light generating module**. The Examiner respectfully disagrees to this assertion.

May discloses a light pen comprising: a photo detective module (figs. 1, 5(30)) that is configured to detect a light (first light) inputted from an external source to output a sensing signal of which level is changed in accordance with an intensity of the light (col. 2, lines 45-56, col. 3, lines 5-16, col. 4, lines 25-28, 48-52), the photo detective module being disposed in the body (fig. 1), and the photo detective module is exposed to an exterior to the body (figs. 1, 2, 5, col. 8, lines 11-21); and

a control module that is configured to output a control signal in response to the sensing signal when the level of the sensing is higher than a level of a reference signal (fig. 5, col. 5, lines 3-7).

Colgan et al. teaches a stylus that has a light generating module (fig. 2(18), LED) that is configured to receive a driving power signal (fig. 3, col. 3, lines 40-45) in response to a control signal to generate a light (second light) (fig. 3, col. 3, lines 35-40).

Therefore, May (as modified by Colgan et al.) clearly teaches all the claim limitations of claim 1.

Since both references are in the same art invention, these two references can be combined. It is not necessary that the references actually suggest, expressly or in so many words, the changes or improvements that applicant has made. The test for combining references is what the references as a whole would have suggested to one of ordinary skill in the art. In re Sheckler, 168 USPQ 716 (CCPA 1971); In re McLaughlin 170 USPQ 209 (CCPA 1971); In re Young 159 USPQ 725 (CCPA 1968).

**9. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.



***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AFROZA Y. CHOWDHURY whose telephone number is (571)270-1543. The examiner can normally be reached on 7:30-5:00 EST, 5/4/9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AC  
3/25/2009

/Bipin Shalwala/  
Supervisory Patent Examiner, Art  
Unit 2629